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GROUP 3600 PATENT

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RAL9-2000-0034US1

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	:	Before the Examiner:
Gerken et al.	:	James S. McClellan
Serial No.: 09/672,435	:	Group Art Unit: 3627
Filed: September 28, 2000	:	
Title: CUSTOMER CHECKOUT	:	IBM Corporation
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SUPPLEMENTAL APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This brief is being submitted pursuant to 37 C.F.R. §1.193(b)(2)(ii). Appellants are furnishing herewith three (3) copies of this brief.

CERTIFICATION UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence (along with any item referred to as being enclosed herewith) is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 16, 2004.


Signature

Serena Beller
(Printed name of person certifying)

I. INCORPORATION BY REFERENCE

Appellants hereby incorporate herein by reference Sections I-V and VIII-IX of Appellants' Brief mailed on February 23, 2004.

II. STATUS OF AMENDMENTS

Appellants have submitted a 1.116 Reply, having a mailing date of August 16, 2004, amending objected claims 9 and 31 to be written in independent form thereby adopting the Examiner's suggestion which requires only a cursory review by the Examiner.

III. ISSUES

A. Are claims 1-5, 8, 11, 24-28 and 33 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Bigari (U.S. Patent No. 5,010,485) (hereinafter "Bigari") in view of Walker et al. (U.S. Patent No. 6,327,573) (hereinafter "Walker")?

B. Are claims 6, 7, 29 and 30 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Bigari in view of Walker and in further view of Deaton et al. (U.S. Patent No. 6,611,811) (hereinafter "Deaton")?

C. Are claims 15-23 and 37-45 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Bigari in view of Walker and in further view of Terranova (U.S. Patent No. 6,098,879)?

IV. GROUPING OF CLAIMS

Claims 1, 3-5, 8, 11, 24, 26-28 and 33 form a first group.

Claims 2 and 25 form a second group.

Claims 6, 7, 29 and 30 form a third group.

Claim 15, 20, 37 and 42 form a fourth group.

Claims 16, 21, 38 and 43 form a fifth group.

Claims 17, 22, 39 and 44 form a sixth group.

Claims 18 and 40 form an seventh group.

Claims 19 and 41 form an eighth group.

Claims 23 and 45 form a ninth group.

The reasons for these groupings are set forth in Appellants' arguments in Section V.

V. ADDITIONAL ARGUMENT

A. Claims 1-5, 8, 11, 24-28 and 33 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Bigari in view of Walker.

The Examiner has rejected claims 1-5, 8, 11, 24-28 and 33 under 35 U.S.C. §103(a) as being unpatentable over Bigari in view of Walker. Paper No. 15, page 3. Appellants respectfully traverse these rejections for at least the reasons stated below.

1. The Examiner has not presented any objective evidence for combining Bigari with Walker.

A *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and particular and supported by objective evidence. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

The Examiner's motivation for modifying Bigari with Walker to store the approval amount in a preapproval cache at a point of sales terminal for use in completing the sales transaction, as recited in claim 1 and similarly in claim 24, is "because providing cache for a processor allows the processor to operate more efficiently and at a higher speed because cache memory serves as a high-speed local memory source." Paper No. 15, page 4. The Examiner's motivation is insufficient to support a *prima facie* case of obviousness for at least the reasons stated below.

The Examiner's motivation is not a motivation as to why one of ordinary skill in the art with the primary reference (Bigari) in front of him would have been motivated to modify the primary reference (Bigari) with the teachings of the secondary reference (Walker). There is no suggestion in Bigari of providing a cache for a processor to allow the processor to operate more efficiently and at a higher speed because cache memory serves as a high-speed local memory source (Examiner's motivation). Further, the motivation does not address as to why one of ordinary skill in the art would modify Bigari to store an approval amount in a preapproval cache at a point of sales terminal. The Examiner has not explained how installing a cache memory to improve the efficiency of the processor is related to storing an approval amount in a preapproval cache at a point of sales terminal. Instead, the Examiner is merely relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). The Examiner must provide objective evidence as to why one of ordinary skill in the art with the primary reference (Bigari) in front of him, which teaches processing charge vouchers against charge card accounts administered by a host institution that issues an approval/disapproval to a merchant for a proposed transaction (Abstract of Bigari), would have been motivated to modify the primary reference (Bigari) with the teachings of the secondary reference (Walker), which teaches enabling a frequent shopper reward system capable of tracking performance data of a plurality of members or account holders linked to a single

frequent shopper account (Abstract of Walker). *See In re Lee*, 61 U.S.P.Q.2d 1430, 1433-1434 (Fed. Cir. 2002); *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000). Merely stating to provide cache for a processor to allow the processor to operate more efficiently and at a higher speed is not evidence for combining the primary reference (Bigari) with the secondary reference (Walker). *See Id.* Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 1-5, 8, 11, 24-28 and 33. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of combining Bigari, which teaches processing charge vouchers against charge card accounts administered by a host institution that issues an approval/disapproval to a merchant for a proposed transaction, with Walker, which teaches enabling a frequent shopper reward system capable of tracking performance data of a plurality of members or account holders linked to a single frequent shopper account. There is no suggestion in Bigari of having a frequent shopper reward system. Neither is there any suggestion in Bigari of having a frequent shopper reward system capable of tracking performance data of a plurality of members or account holders linked to a single frequent shopper account. Since the Examiner has not submitted objective evidence for modifying Bigari with Walker, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-5, 8, 11, 24-28 and 33. *Id.*

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Bigari to store the approval amount in a preapproval cache at a point of sales terminal for use in completing the sales transaction (Examiner admits that Bigari does not teach this limitation). *Id.* There is no suggestion in Bigari of storing an approval amount at a point of sales terminal. Neither is there any suggestion in Bigari of storing an approval amount in a

preapproval cache at a point of sales terminal. Neither is there any suggestion in Bigari of storing an approval amount in a preapproval cache at a point of sales terminal for use in completing the sales transaction. Since the Examiner has not submitted objective evidence for modifying Bigari to store the approval amount in a preapproval cache at a point of sales terminal for use in completing the sales transaction, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-5, 8, 11, 24-28 and 33. *Id.*

As a result of the foregoing, Appellants respectfully assert that the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-5, 8, 11, 24-28 and 33. M.P.E.P. §2143.

2. By combining Bigari with Walker, the principle of operation Bigari would change.

If the proposed modification or combination of the prior art would change the principle of the operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959). Further, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). For the reasons discussed below, Appellants submit that by combining Bigari with Walker, the principle of operation in Bigari would change and subsequently render the operation of Bigari to perform its purpose unsatisfactorily.

Bigari teaches that it is an object of the present invention to provide a new and useful system, apparatus and method for implementing credit purchases at locations which require rapid throughput of transaction events. Column 3, lines 12-15. Bigari further teaches a charge card reader that receives a customer charge card and reads information contained thereon to produce identification data corresponding to the charge card, with this identification data then being transmitted to the host institution

by the data transmitter/receiver over the communication line opened by the autodialer. Column 4, lines 1-6. Bigari further teaches that the data processor is operative in response to transaction data entered by the manual entry means to interrogate the host institution by way of the data transmitter/receiver in order to obtain the approval/disapproval status signal for the proposed charge. Column 4, lines 7-11. Bigari further teaches that the data processor is operative in response to an approval signal to produce a print signal. Column 4, lines 11-13. Bigari further teaches means, such as a printer, is provided to produce a voucher for a maximum approved charge corresponding to the proposed charge in response to a print signal; this voucher is indexed with both transaction identification data and maximum approved charge data entered thereon by the printer. Column 4, lines 13-18. Bigari further teaches that the customer endorses the voucher, still at the location remote from the point of purchase station. Column 4, lines 19-22. Bigari further teaches that the voucher thus becomes valid for the maximum amount of the proposed charge. Column 4, lines 20-22. Bigari further teaches that the card holder only then approaches the point of purchase station and places his/her order for goods or services and the actual transaction is totaled. Column 4, lines 22-25. Bigari further teaches that the attendant of the point of purchase station updates the voucher for an actual charge amount less than or equal to the maximum purchase amount approved by the host institution. Column 4, lines 25-28.

Walker, on the other hand, teaches a reward method that includes the steps of: retrieving, in response to an account identifier (frequent shopper rewards program card), a customer record associated with the account identifier, the customer record including account information identifying a plurality of sub-account holders; determining which of the plurality of sub-account holders are present; transacting with at least one of the present sub-account holders; calculating a reward level; allocating, to at least one of the present sub-account holders, at least a portion of the determined reward level; and updating the retrieved customer record. Column 2,

lines 19-29. Walker further teaches that the method is performed at a point of sale terminal. Column 3, lines 38-40.

Hence, by combining Bigari and Walker, Bigari would not be able to implement credit purchases at locations which require rapid throughput of transaction events. Instead, Bigari would have to be modified to have the customer go to a point of sale terminal to receive the customer's frequent shopper rewards program card and then determine if the customer is one of the multiple sub-account holders (if there are multiple account holders). Bigari would no longer be able to have the customer go to a location remote from the point of purchase station to produce a voucher for a maximum approved charge. By not being able to have the customer go to a location remote from the point of purchase station, Bigari would not be able to implement credit purchases at locations which require rapid throughput of transaction events. Hence, by combining Bigari with Walker, the principle of operation in Bigari would change and subsequently render the operation of Bigari to perform its purpose unsatisfactorily. Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-5, 8, 11, 24-28 and 33. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959); *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

3. The Examiner has not presented a reasonable expectation of success when combining Bigari with Walker.

The Examiner must present a reasonable expectation of success in combining Bigari with Walker in order to establish a *prima facie* case of obviousness. M.P.E.P. §2143.02. As stated above, Bigari teaches processing charge vouchers against charge card accounts administered by a host institution that issues an approval/disapproval to a merchant for a proposed transaction. Walker, on the other hand, teaches enabling a frequent shopper reward system capable of tracking performance data of a plurality of members or account holders linked to a single frequent shopper account. The Examiner has not presented any evidence that there would be a reasonable

expectation of success in combining Bigari, which teaches processing charge vouchers against charge card accounts, with Walker, which teaches a frequent shopper reward system that tracks the performance data of multiple account holders linked to a single frequent shopper account. The Examiner has not provided any evidence as to how a system that teaches processing charge vouchers against charge card accounts would be combined with a frequent shopper reward system that tracks the performance data of multiple account holders linked to a single frequent shopper account. Consequently, the Examiner has not provided a *prima facie* case of obviousness for rejecting claims 1-5, 8, 11, 24-28 and 33. M.P.E.P. §2143.02.

4. Bigari and Walker, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert that Bigari and Walker, taken singly or in combination, do not teach or suggest "storing the approval amount in a preapproval cache at a point of sales terminal for use in completing the sales transaction" as recited in claim 1 and similarly in claim 24. The Examiner states:

Bigari fails to expressly disclose storing the preapproval amount in a preapproval cache at a point of sales terminal. After inputting the preapproval amount via voucher reader 34, Bigari is silent as to where or how the preapproval amount is stored in anticipation of processing by the point of sale terminal. Walker teaches the use of a point of sales terminal that includes a processor (154) that further comprises cache memory that assists in executing software routines. Paper No. 15, page 4.

Appellants respectfully traverse that Bigari and Walker, taken in combination, teach the above-cited claim limitation. The Examiner is mistaken that Bigari teaches storing a preapproval amount at a point of sales terminal. Bigari instead teaches a payment voucher apparatus (Figure 1) that receives both the account identification data of a member charge card and the maximum charge amount by the host institution. Column 7, lines 49-51. Bigari further teaches that the host institution determines whether the correlated customer account has available credit line funds at

least equal to the maximum charge amount. Column 7, lines 53-56. Bigari further teaches that if such funds are available, the host institution issues an approval status signal and reserves or "holds" funds from the customer account equal to the approved maximum charge amount. Column 7, lines 56-60. Bigari further teaches that if the maximum charge amount was approved, microprocessor 12 stores the maximum charge amount. Column 8, lines 6-7. Bigari further teaches that generating a voucher that includes both account identification data as well as the maximum charge amount permitted. Column 8, lines 8, lines 10-20. However, Bigari further teaches that the customer then endorses the voucher, still at the location remote from the point of purchase station. Column 4, lines 19-22. Hence, Bigari teaches storing a maximum charge amount at a location remote from the point of purchase station. Bigari does not teach storing a maximum charge amount at a point of sale terminal as asserted by the Examiner.

Furthermore, Walker does not teach storing a preapproval amount at a point of sales terminal. Walker does teach microprocessor 154 in a point of sale terminal that cooperates with conventional support circuitry 153 such as power supplies, clock circuits and cache memory. Column 3, lines 38-44. However, there is no language in Walker that suggests storing a preapproval amount in a cache at a point of sales terminal.

Therefore, the Examiner has not presented a *prima facie* case of obviousness since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Bigari and Walker, taken singly or in combination, do not teach or suggest "the act of transmitting the preapproval amount from the customer checkout accelerator to a store controller" as recited in claim 2 and similarly in claim 25. The Examiner cites microprocessor 12 of Bigari for being both a customer checkout accelerator and a store controller. Paper No. 15, page 7. The Examiner cites the payment voucher processing apparatus 10 that includes

microprocessor 12 as being a customer checkout accelerator in his rejection to claims 1 and 24. Paper No. 15, page 3. The Examiner has also cited microprocessor 12 via transmitter/receiver 16 as being a store controller. Paper No. 15, page 3. Appellants respectfully assert that microprocessor 12 cannot both be a store controller as well as within the customer checkout accelerator. The above-cited claim states that a preapproval amount is transmitted from the customer checkout accelerator to a store controller. Under the doctrine of claim differentiation, a customer checkout accelerator is different from a store controller. These are separate elements and not the same element. The Examiner needs to cite one element that corresponds to a customer checkout accelerator and another element that corresponds to a store controller. Therefore, the Examiner has not presented a *prima facie* case of obviousness since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Furthermore, Bigari instead teaches that microprocessor 12 may be placed in communication with a host institution 14 by means of a transmitting means and a receiving means such as a telephone transmitter/receiver 16. Column 6, lines 28-31. Bigari further teaches that microprocessor 12 instructs an autodialer 18 to activate telephone 16 so as to open communication line 20 to host institution 14. Column 6, lines 31-33. Hence, transmitter/receiver 16 is used for transmitting to the host institution and not to a store controller. Therefore, the Examiner has not presented a *prima facie* case of obviousness since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Further, Bigari instead teaches a point of purchase station 31 that may include a cash register processor 32 which is linked by communication line 33 to microprocessor 12. Column 9, lines 59-61. Bigari further teaches that cash register processor 32 is linked to a voucher reader 34 which can scan a voucher printed by voucher printer 30 to derive account identification data and maximum charge data

from the voucher. Column 9, lines 61-65. Bigari further teaches that voucher reader 34 provides input to cash register processor 32 of this data. Column 9, lines 65-66. Hence, Bigari teaches reading the maximum charge data from the voucher. However, there is no language of transmitting this information to a store controller. Therefore, the Examiner has not presented a *prima facie* case of obviousness since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

As a result of the foregoing, Appellants respectfully assert that there are numerous claim limitations not taught or suggested in the cited prior art, and thus the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-5, 8, 11, 24-28 and 33 as being unpatentable over Bigari in view of Walker. M.P.E.P. §2143.

B. Claims 6, 7, 29 and 30 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Bigari in view of Walker and in further view of Deaton.

The Examiner has rejected claims 6, 7, 29 and 30 under 35 U.S.C. §103(a) as being unpatentable over Bigari in view of Walker and in further view of Deaton. Paper No. 15, page 4. Appellants respectfully traverse these rejections for at least the reasons stated below.

1. The Examiner's proposed modification would render Bigari unsatisfactory for its intended purpose.

The Examiner's motivation for modifying Bigari with Walker and Deaton to determine a preapproval amount that is based on an actual purchase history for the customer if the payment card is a customer loyalty card, as recited in claim 6 and similarly in claim 29, is "because using historical data provides an accurate estimate of the required preapproval amount, wherein reducing the chance of requesting time consuming reauthorizations." Paper No. 15, page 4. The Examiner's motivation is

insufficient to support a *prima facie* case of obviousness for at least the reasons stated below.

If the proposed modification of the prior art would change the principle of the operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959). Further, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). For the reasons discussed below, Appellants submit that by modifying Bigari to use historical data to provide an accurate estimate of the required preapproval amount (Examiner's motivation), the principle of operation in Bigari would change and subsequently render the operation of Bigari to perform its purpose unsatisfactorily.

As stated above, Bigari teaches that it is an object of the present invention to provide a new and useful system, apparatus and method for implementing credit purchases at locations which require rapid throughput of transaction events. Column 3, lines 12-15. Bigari further teaches a charge card reader that receives a customer charge card and reads information contained thereon to produce identification data corresponding to the charge card, with this identification data then being transmitted to the host institution by the data transmitter/receiver over the communication line opened by the autodialer. Column 4, lines 1-6. Bigari further teaches that the data processor is operative in response to transaction data entered by the manual entry means to interrogate the host institution by way of the data transmitter/receiver in order to obtain the approval/disapproval status signal for the proposed charge. Column 4, lines 7-11. Bigari further teaches that the data processor is operative in response to an approval signal to produce a print signal. Column 4, lines 11-13. Bigari further teaches means, such as a printer, is provided to produce a voucher for a maximum approved charge corresponding to the proposed charge in response to a

print signal; this voucher is indexed with both transaction identification data and maximum approved charge data entered thereon by the printer. Column 4, lines 13-18.

Hence, by modifying Bigari to use historical data instead of using the customer's charge card to provide an accurate estimate of the required preapproval amount, Bigari would no longer be able to obtain the maximum approved charge based on the customer's charge card. By not being able to obtain the maximum approved charge based on the customer's charge card, Bigari would no longer be able to interrogate the host institution to obtain the approval/disapproval status signal for the proposed charge. Neither would Bigari be able to produce a voucher for a maximum approved charge corresponding to the proposed charge in response to a print signal which is in response to an approved signal from the host institution. Consequently, Bigari would not be able to implement credit purchases at locations which require rapid throughput of transaction events. Hence, by modifying Bigari to use historical data instead of using the customer's charge card to provide an accurate estimate of the required preapproval amount, the principle of operation in Bigari would change and subsequently render the operation of Lien to perform its purpose unsatisfactorily. Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 7, 29 and 30. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959); *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

2. The Examiner has not presented any objective evidence for combining Bigari with Walker and Deaton.

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and

particular and supported by objective evidence. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

As stated above, the Examiner's motivation for modifying Bigari with Walker and Deaton to determine a preapproval amount that is based on an actual purchase history for the customer if the payment card is a customer loyalty card, as recited in claim 6 and similarly in claim 29, is "because using historical data provides an accurate estimate of the required preapproval amount, wherein reducing the chance of requesting time consuming reauthorizations." Paper No. 15, page 4. The Examiner's motivation is insufficient to support a *prima facie* case of obviousness for at least the reasons stated below.

The Examiner's motivation is not a motivation as to why one of ordinary skill in the art with the primary reference (Bigari) in front of him would have been motivated to modify the primary reference (Bigari) with the teachings of the secondary references (Walker and Deaton). There is no suggestion in Bigari of using historical data to provide an accurate estimate of a preapproval amount (Examiner's motivation). The Examiner is merely relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). The Examiner must provide objective evidence as to why one of ordinary skill in the art with the primary reference (Bigari) in front of him, which teaches processing charge vouchers against charge card accounts administered by a host institution that issues an approval/disapproval to a merchant for a proposed transaction (Abstract of Bigari), would have been motivated to modify the primary reference (Bigari) with the teachings of the secondary reference (Deaton), which teaches storing a particular customer's past shopping history (column 73, lines 43-46). See *In re Lee*, 61 U.S.P.Q.2d 1430, 1433-1434 (Fed. Cir. 2002); *In re Kotzab*,

55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000). Merely stating using historical data to provide an accurate estimate of a preapproval amount is not evidence for combining the primary reference (Bigari) with the secondary reference (Deaton). *See Id.* Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 6, 7, 29 and 30. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of combining Bigari, which teaches processing charge vouchers against charge card accounts administered by a host institution that issues an approval/disapproval to a merchant for a proposed transaction, with Deaton, which teaches storing a particular customer's past shopping history. There is no suggestion in Bigari of storing a customer's past shopping history. Since the Examiner has not submitted objective evidence for modifying Bigari with Deaton, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 7, 29 and 30. *Id.*

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Bigari to determine a preapproval amount that is based on an actual purchase history for the customer if the payment card is a customer loyalty card (Examiner admits that Bigari does not teach this limitation). *Id.* There is no suggestion in Bigari of determining a preapproval amount based on a customer's purchase history. Neither is there any suggestion in Bigari of determining a preapproval amount based on a customer's purchase history if the payment card is a customer loyalty card. Since the Examiner has not submitted objective evidence for modifying Bigari to determine a preapproval amount that is based on an actual purchase history for the customer if the payment card is a customer loyalty card, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 7, 29 and 30. *Id.*

As a result of the foregoing, Appellants respectfully assert that the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 7, 29 and 30. M.P.E.P. §2143.

3. Bigari, Walker and Deaton, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert that Bigari, Walker and Deaton, taken singly or in combination, do not teach or suggest "wherein if the payment card is a customer loyalty card, determining a preapproval amount that is based on an actual purchase history for the customer" as recited in claim 6 and similarly in claim 29. Further, Appellants respectfully assert that Bigari, Walker and Deaton, taken singly or in combination, do not teach or suggest "wherein if the payment card is a credit or debit card, determining a preapproval amount that is based on average customer purchase amount for credit and debit transactions on a store wide basis" s recited in claim 7 and similarly in claim 30. The Examiner cites column 73 of Deaton as teaching the above-cited claim limitations. Paper No. 15, page 5. Appellants respectfully traverse and assert that Deaton instead teaches storing a customer's past shopping history. However, there is no language in either Deaton, Bigari or Walker that teaches determining an approval amount based on the customer's past shopping history. Neither is there any language in either Deaton, Bigari or Walker that teaches determining an approval amount based on the customer's past shopping history if the payment card is a customer loyalty card. Neither is there any language in either Deaton, Bigari or Walker that teaches determining a preapproval amount that is based on average customer purchase amount for credit and debit transactions on a store wide basis. Neither is there any language in either Deaton, Bigari or Walker that teaches determining a preapproval amount that is based on average customer purchase amount for credit and debit transactions on a store wide basis if the payment card is a credit or debit card. Therefore, the Examiner has not presented a *prima facie* case of obviousness since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

As a result of the foregoing, Appellants respectfully assert that there are numerous claim limitations not taught or suggested in the cited prior art, and thus the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 7, 29 and 30 as being unpatentable over Bigari in view of Walker and in further view of Deaton. M.P.E.P. §2143.

4. Claims 6, 7, 29 and 30 are patentable over Bigari in view of Walker and in further view of Deaton for at least the reasons stated in Section A.

Claims 6 and 7 recite combinations including the combinations of claims 5 and 1 and hence are patentable over Bigari in view of Walker and in further view of Deaton for at least the reasons stated in Section A. Further, claims 29 and 30 recite combinations including the combinations of claims 28, 27, 26, 25 and 24 and hence are patentable over Bigari in view of Walker and in further view of Deaton for at least the reasons stated in Section A.

- C. Claims 15-23 and 37-45 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Bigari in view of Walker and in further view of Terranova.

The Examiner has rejected claims 15-23 and 37-45 under 35 U.S.C. §103(a) as being unpatentable over Bigari in view of Walker and in further view of Terranova. Paper No. 15, page 5. Appellants respectfully traverse these rejections for at least the reasons stated below.

1. The Examiner has not presented any objective evidence for combining Bigari with Walker and Terranova.

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to

make the claimed inventions. M.P.E.P. §2142. The showings must be clear and particular and supported by objective evidence. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

The Examiner has not presented any motivation for modifying Bigari with Walker and Terranova to display on a customer checkout accelerator a selection of special promotional merchandise that can be added to the sales transaction where some or all of the promotional merchandise can be made available through a hyperlink to one or more Internet web sites, as recited in claim 15 and similarly in claim 37. The Examiner must provide a motivation or suggestion to modify Bigari with Walker and Terranova to display on a customer checkout accelerator a selection of special promotional merchandise that can be added to the sales transaction where some or all of the promotional merchandise can be made available through a hyperlink to one or more Internet web sites. M.P.E.P. §2142. Since the Examiner has not provided any motivation, the Examiner has not provided a *prima facie* case of obviousness for rejecting claims 15-23 and 37-45. *Id.*

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of combining Bigari, which teaches processing charge vouchers against charge card accounts administered by a host institution that issues an approval/disapproval to a merchant for a proposed transaction, with Terranova, which teaches a fueling system for automatically providing predefined customer preferences during a fueling operation (Abstract of Terranova). *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). There is no suggestion in Bigari of having a fueling system. Neither is there any suggestion in Bigari of having a fueling system for automatically providing predefined customer preferences. Neither is there any suggestion in Bigari of having a fueling system for automatically providing predefined customer

preferences during a fueling operation. Since the Examiner has not submitted objective evidence for modifying Bigari with Terranova, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 15-23 and 37-45. *Id.*

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Bigari to display on a customer checkout accelerator a selection of special promotional merchandise that can be added to the sales transaction where some or all of the promotional merchandise can be made available through a hyperlink to one or more Internet web sites (Examiner admits that Bigari does not teach this limitation). *Id.* There is no suggestion in Bigari of displaying on a customer checkout accelerator a selection of special promotional merchandise. Neither is there any suggestion in Bigari of displaying on a customer checkout accelerator a selection of special promotional merchandise that can be added to the sales transaction. Neither is there any suggestion in Bigari of displaying on a customer checkout accelerator a selection of special promotional merchandise that can be added to the sales transaction where some or all of the promotional merchandise can be made available through a hyperlink to one or more Internet web sites. Since the Examiner has not submitted objective evidence for modifying Bigari to display on a customer checkout accelerator a selection of special promotional merchandise that can be added to the sales transaction where some or all of the promotional merchandise can be made available through a hyperlink to one or more Internet web sites, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 15-23 and 37-45. *Id.*

As a result of the foregoing, Appellants respectfully assert that the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 15-23 and 37-45. M.P.E.P. §2143.

2. By combining Bigari with Terranova, the principle of operation Bigari would change.

As stated above, if the proposed modification or combination of the prior art would change the principle of the operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959). Further, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). For the reasons discussed below, Appellants submit that by combining Bigari with Terranova, the principle of operation in Bigari would change and subsequently render the operation of Bigari to perform its purpose unsatisfactorily.

As stated above, Bigari teaches that it is an object of the present invention to provide a new and useful system, apparatus and method for implementing credit purchases at locations which require rapid throughput of transaction events. Column 3, lines 12-15. Bigari further teaches a charge card reader that receives a customer charge card and reads information contained thereon to produce identification data corresponding to the charge card, with this identification data then being transmitted to the host institution by the data transmitter/receiver over the communication line opened by the autodialer. Column 4, lines 1-6. Bigari further teaches that the data processor is operative in response to transaction data entered by the manual entry means to interrogate the host institution by way of the data transmitter/receiver in order to obtain the approval/disapproval status signal for the proposed charge. Column 4, lines 7-11. Bigari further teaches that the data processor is operative in response to an approval signal to produce a print signal. Column 4, lines 11-13. Bigari further teaches means, such as a printer, is provided to produce a voucher for a maximum approved charge corresponding to the proposed charge in response to a

print signal; this voucher is indexed with both transaction identification data and maximum approved charge data entered thereon by the printer. Column 4, lines 13-18. Bigari further teaches that the customer endorses the voucher, still at the location remote from the point of purchase station. Column 4, lines 19-22. Bigari further teaches that the voucher thus becomes valid for the maximum amount of the proposed charge. Column 4, lines 20-22. Bigari further teaches that the card holder only then approaches the point of purchase station and places his/her order for goods or services and the actual transaction is totaled. Column 4, lines 22-25. Bigari further teaches that the attendant of the point of purchase station updates the voucher for an actual charge amount less than or equal to the maximum purchase amount approved by the host institution. Column 4, lines 25-28.

Terranova, on the other hand, teaches a fueling system for automatically providing predefined customer preferences during a fueling operation. Abstract. Terranova further teaches that these preferences are typically selected by a customer and associated with a transponder that is issued to the customer. Abstract. Terranova further teaches that during a fuel transaction, the transponder transmits information that a fueling system uses to automatically provide select information to the customer according to the predefined preferences. Abstract.

Hence, by combining Bigari and Terranova, Bigari would not be able to implement credit purchases at locations which require rapid throughput of transaction events. Instead, Bigari would have to be modified to be a fueling station that would receive customer preferences from a transponder issued to a customer instead of receiving a customer's charge card which is used to determine a maximum approved charge by a host institution. Hence, Bigari would no longer be able to print out a voucher for a maximum approved charge or perform any of the required steps in implementing credit purchases at locations which require rapid throughput of transaction events. Consequently, by combining Bigari with Terranova, the principle of operation in Bigari would change and subsequently render the operation of Bigari

to perform its purpose unsatisfactorily. Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 15-23 and 37-45. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959); *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

3. The Examiner has not presented a reasonable expectation of success when combining Bigari with Terranova.

The Examiner must present a reasonable expectation of success in combining Bigari with Terranova in order to establish a *prima facie* case of obviousness. M.P.E.P. §2143.02. As stated above, Bigari teaches processing charge vouchers against charge card accounts administered by a host institution that issues an approval/disapproval to a merchant for a proposed transaction. Terranova, on the other hand, teaches a fueling system for automatically providing predefined customer preferences during a fueling operation. The Examiner has not presented any evidence that there would be a reasonable expectation of success in combining Bigari, which teaches processing charge vouchers against charge card accounts, with Terranova, which teaches a fueling system for automatically providing predefined customer preferences during a fueling operation. The Examiner has not provided any evidence as to how a system that teaches processing charge vouchers against charge card accounts would be combined with a fueling system that provides predefined customer preferences during a fueling operation. Consequently, the Examiner has not provided a *prima facie* case of obviousness for rejecting claims 15-23 and 37-45. M.P.E.P. §2143.02.

4. Bigari, Walker and Terranova, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert that Bigari, Walker and Terranova., taken singly or in combination, do not teach or suggest "creating a record of any additional items added to the sales transaction; appending the additional items record to a preapproval

database entry for the sales transaction" as recited in claim 16 and similarly in claims 21, 38 and 43. The Examiner does not cite any passage in either Bigari, Walker or Terranova as teaching the above-cited claim limitation. Upon review of the references, Appellants respectfully assert that none of the reference teach or suggest the above-cited claim limitation. The Examiner bears the initial burden and must submit objective evidence and not rely on his own subjective opinion in support of a *prima facie* case of obviousness. *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992). Since the Examiner has not provided any evidence that Bigari, Walker and Terranova, taken singly or in combination, teach or suggest the above-cited claim limitation, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 16, 21, 38 and 43. M.P.E.P. §2143.

Appellants further assert that Bigari, Walker and Terranova, taken singly or in combination, do not teach or suggest "the act of reading the additional items record into a sales transaction record at a point of sale terminal" as recited in claim 17 and similarly in claims 22, 39 and 44. The Examiner does not cite any passage in either Bigari, Walker or Terranova. as teaching the above-cited claim limitation. Upon review of both references, Appellants respectfully assert that none of the references teach or suggest the above-cited claim limitation. The Examiner is reminded that the Examiner bears the initial burden and must submit objective evidence and not rely on his own subjective opinion in support of a *prima facie* case of obviousness. *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992). Since the Examiner has not provided any evidence that Bigari, Walker and Terranova, taken singly or in combination, teach or suggest the above-cited claim limitation, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 17, 22, 39 and 44. M.P.E.P. §2143.

Appellants further assert that Bigari, Walker and Terranova, taken singly or in combination, do not teach or suggest "updating a vendor-based tracking database to bill the vendor for displaying a vendor advertisement on the customer checkout

accelerator when the approval from the external card services system is approved" as recited in claim 18 and similarly in claim 40. The Examiner takes Office Notice that it is well known in the art to track advertisements for billing vendors. Paper No. 15, page 5. Appellants respectfully traverse the assertion that it is well known in the art to update a vendor-based tracking database to bill the vendor for displaying a vendor advertisement on the customer checkout accelerator when the approval from the external card services system is approved. Appellants respectfully request the Examiner to provide a reference that teaches the above-cited claim limitation pursuant to M.P.E.P. §2144.03. Appellants further note that the Examiner must consider all words in a claim, e.g., "when the approval from the external card services system is approved", "updating a vendor-based tracking database," in judging the patentability of claims 18 and 40 against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); M.P.E.P. §2143.03. Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 18 and 40. M.P.E.P. §2143.

Appellants further assert that Bigari Walker and Terranova, taken singly or in combination, do not teach or suggest "configuring a selection of additional categories of items to be displayed on the customer checkout accelerator based on customer preferences wherein some or all of the categories of items can be made available through a hyperlink to one or more Internet web sites; and storing the category selections in a customer loyalty database that is maintained by the retail store" as recited in claim 19 and similarly in claim 41. The Examiner does not cite any passage in either Bigari, Walker or Terranova as teaching the above-cited claim limitation. Upon review of both references, Appellants respectfully assert that none of the references teach or suggest the above-cited claim limitation. The Examiner is reminded that the Examiner bears the initial burden and must submit objective evidence and not rely on his own subjective opinion in support of a *prima facie* case of obviousness. *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992). Since the

Examiner has not provided any evidence that Bigari, Walker and Terranova, taken singly or in combination, teach or suggest the above-cited claim limitation, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 19 and 41. M.P.E.P. §2143.

Appellants further assert that Bigari Walker and Terranova, taken singly or in combination, do not teach or suggest "updating a vendor-based tracking database to bill the vendor for displaying on the customer checkout accelerator a vendor advertisement for merchandise that can be made available through a hyperlink to the vendor's Internet web site when the approval from the external card services system is approved" as recited in claim 23 and similarly in claim 45. The Examiner takes Office Notice that it is well known in the art to track advertisements for billing vendors. Paper No. 15, page 5. Appellants respectfully traverse the assertion that it is well known in the art to update a vendor-based tracking database to bill the vendor for displaying on the customer checkout accelerator a vendor advertisement for merchandise that can be made available through a hyperlink to the vendor's Internet web site when the approval from the external card services system is approved. Appellants respectfully request the Examiner to provide a reference that teaches the above-cited claim limitation pursuant to M.P.E.P. §2144.03. Appellants further note that the Examiner must consider all words in a claim, e.g., "when the approval from the external card services system is approved", "updating a vendor-based tracking database," in judging the patentability of claims 18 and 40 against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); M.P.E.P. §2143.03. Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 23 and 45. M.P.E.P. §2143.

As a result of the foregoing, Appellants respectfully assert that there are numerous claim limitations not taught or suggested in the cited prior art, and thus the Examiner has not presented a *prima facie* case of obviousness for rejecting the above-

cited claims as being unpatentable over Bigari in view of Walker and in further view of Terranova. M.P.E.P. §2143.

5. Claims 15-23 and 37-45 are patentable over Bigari in view of Walker and in further view of Terranova for at least the reasons stated in Section A.

Claims 15-23 and 37-45 recite combinations including the combinations of claims 1 and 24, respectively, and hence are patentable over Bigari in view of Walker and in further view of Terranova for at least the reasons stated in Section A.

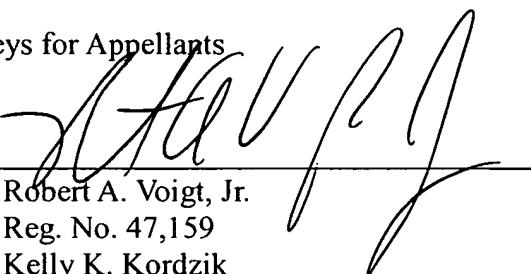
IX. CONCLUSION

For the reasons noted above, the rejections of claims 1-8, 11, 15-30, 33 and 37-45 are in error. Appellants respectfully request reversal of the rejections and allowance of claims 1-45.

Respectfully submitted,

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APPENDIX

1 1. A method for accelerating sales transactions of customers in a retail store,
2 comprising the acts of:

3 reading a customer payment card number at a customer checkout accelerator;
4 determining a preapproval amount for the sales transaction;
5 displaying the preapproval sales transaction amount to the customer on the
6 customer checkout accelerator for acceptance;

7 transmitting the preapproval amount to an external card services system for
8 approval; and

9 storing the approval amount in a preapproval cache at a point of sales terminal
10 for use in completing the sales transaction.

1 2. The method for accelerating the sales transactions of customers in a retail
2 store of claim 1 further comprising the act of transmitting the preapproval amount
3 from the customer checkout accelerator to a store controller.

1 3. The method for accelerating the sales transactions of customers in a retail
2 store of claim 2 further comprising placing an entry in a preapproval database if the
3 external card services system approves the transaction amount.

1 4. The method for accelerating the sales transactions of customers in a retail
2 store of claim 3 further comprising notifying a point of sales terminal of the approval
3 amount.

1 5. The method for accelerating the sales transactions of customers in a retail
2 store of claim 1 further comprising the act of determining if the payment card is one
3 or more of a credit card, a debit card, a customer loyalty card, an electronic/Internet
4 wallet, or an electronic gift certificate.

1 6. The method for accelerating the sales transactions of customers in a retail
2 store of claim 5 wherein if the payment card is a customer loyalty card, determining a
3 preapproval amount that is based on an actual purchase history for the customer.

1 7. The method for accelerating the sales transactions of customers in a retail
2 store of claim 5 wherein if the payment card is a credit or debit card, determining a
3 preapproval amount that is based on an average customer purchase amount for credit
4 and debit transactions on a store wide basis.

1 8. The method for accelerating the sales transactions of customers in a retail
2 store of claim 1 further comprising the act of manually entering a specific
3 preapproval amount by the customer.

1 9. A method for accelerating sales transactions of customers in a retail store,
2 comprising the acts of:

3 reading a customer payment card number at a customer checkout accelerator;
4 determining a preapproval amount for the sales transaction;
5 displaying the preapproval sales transaction amount to the customer on the
6 customer checkout accelerator for acceptance;

7 transmitting the preapproval amount to an external card services system for
8 approval;

9 storing the approval amount in a preapproval cache at a point of sales terminal
10 for use in completing the sales transaction;

11 scanning the customer payment card at a point of sales terminal;
12 determining if there is an entry for the customer in the preapproval cache; and
13 resuming the sales transaction at the point of sale terminal.

1 10. The method for accelerating the sales transactions of customers in a retail
2 store of claim 9 wherein the act of resuming the sales transaction comprises the acts
3 of:

4 comparing the actual sales transaction amount with the preapproval amount;
5 updating a preapproval database with the actual sales transaction amount; and

6 releasing the difference between the preapproval amount and the actual sales
7 transaction amount in the preapproval database.

1 11. The method for accelerating the sales transactions of customers in a retail
2 store of claim 1 further comprising the act of printing a sales transaction receipt and a
3 credit or debit voucher.

1 12. The method for accelerating the sales transactions of customers in a retail
2 store of claim 9 wherein if there is no entry for the customer in the preapproval cache,
3 retrieving the preapproval amount from a preapproval database on a store controller
4 file server.

1 13. The method for accelerating the sales transactions of customers in a retail
2 store of claim 10 wherein the act of resuming the sales transaction includes the acts
3 of:

4 scanning the items selected by the customer for purchase during the sales
5 transaction;

6 determining a subtotal purchase amount after each item is scanned;

7 determining if the subtotal amount exceeds the preapproval amount; and

8 dynamically requesting an additional amount for approval during the sales
9 transaction, if the subtotal amount exceeds the preapproval amount.

1 14. The method for accelerating the sales transactions of customers in a retail
2 store of claim 13 further comprising the acts of:

3 transmitting an additional preapproval amount from the external card services
4 system;

5 updating the preapproval cache with the additional preapproval amount if
6 approved; and

7 notifying the operator of the point of sale terminal if the additional
8 preapproval amount is denied.

1 15. The method for accelerating the sales transactions of customers in a retail
2 store of claim 1 further comprising the act of displaying on the customer checkout
3 accelerator a selection of special promotional merchandise that can be added to the

4 sales transaction, wherein some or all of the promotional merchandise can be made
5 available through a hyperlink to one or more Internet web sites.

1 16. The method for accelerating the sales transactions of customers in a retail
2 store of claim 15 further comprising the acts of:

3 creating a record of any additional items added to the sales transaction;

4 appending the additional items record to a preapproval database entry for the
5 sales transaction.

1 17. The method for accelerating the sales transactions of customers in a retail
2 store of claim 16 further comprising the act of reading the additional items record into
3 a sales transaction record at a point of sale terminal.

1 18. The method for accelerating the sales transactions of customers in a retail
2 store of claim 17 further comprising the acts of updating a vendor-based tracking
3 database to bill the vendor for displaying a vendor advertisement on the customer
4 checkout accelerator when the approval from the external card services system is
5 approved.

1 19. The method for accelerating the sales transactions of customers in a retail
2 store of claim 1 further comprising the acts of:

3 configuring a selection of additional categories of items to be displayed on the
4 customer checkout accelerator based on customer preferences wherein some or all of
5 the categories of items can be made available through a hyperlink to one or more
6 Internet web sites; and

7 storing the category selections in a customer loyalty database that is
8 maintained by the retail store.

1 20. The method for accelerating the sales transactions of customers in a retail
2 store of claim 19 further comprising the act of displaying on the customer checkout
3 accelerator a selection of special promotional merchandise in the customer selected
4 categories that can be added to the sales transaction wherein some or all of the
5 promotional merchandise can be made available through a hyperlink to one or more
6 Internet web sites.

1 21. The method for accelerating the sales transactions of customers in a retail
2 store of claim 20 further comprising the acts of:

3 creating a record of any additional items added to the sales transaction;

4 appending the additional items record to a preapproval database entry for the
5 sales transaction.

1 22. The method for accelerating the sales transactions of customers in a retail
2 store of claim 21 further comprising the act of reading the additional items record into
3 a sales transaction record at a point of sale terminal.

1 23. The method for accelerating the sales transactions of customers in a retail
2 store of claim 22 further comprising the acts of updating a vendor-based tracking
3 database to bill the vendor for displaying on the customer checkout accelerator a
4 vendor advertisement for merchandise that can be made available through a hyperlink
5 to the vendor's Internet web site when the approval from the external card services
6 system is approved.

1 24. A computer readable medium containing a computer program product for
2 accelerating sales transactions of customers in a retail store, comprising:

3 program instructions that read a customer payment card number at a customer
4 checkout accelerator;

5 program instructions that determine a preapproval amount for the sales
6 transaction;

7 program instructions that display the preapproval sales transaction amount to
8 the customer on the customer checkout accelerator for acceptance;

9 program instructions that transmit the preapproval amount to an external card
10 services system for approval; and

11 program instructions that store the approval amount in a preapproval cache at
12 a point of sales terminal for use in completing the sales transaction.

1 25. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 24 further comprising program instructions that

3 transmit the preapproval amount from the customer checkout accelerator to a store
4 controller.

1 26. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 25 further comprising program instructions that
3 place an entry in a preapproval database if the external card services system approves
4 the transaction amount.

1 27. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 26 further comprising program instructions that
3 notify a point of sales terminal of the approval amount.

1 28. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 27 further comprising program instructions that
3 determine if the payment card is one or more of a credit card, a debit card, a customer
4 loyalty card, an electronic/Internet wallet or an electronic gift certificate.

1 29. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 28 further comprising program instructions that
3 determine a preapproval amount that is based on an actual purchase history for the
4 customer if the payment card is a customer loyalty card.

1 30. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 28, further comprising program instructions that
3 determine a preapproval amount that is based on an average customer purchase
4 amount for credit and debit transactions on a store wide basis if the payment card is a
5 credit or debit card.

1 31. A computer readable medium containing a computer program product for
2 accelerating sales transactions of customers in a retail store, comprising:
3 program instructions that read a customer payment card number at a customer
4 checkout accelerator;

5 program instructions that determine a preapproval amount for the sales
6 transaction;

7 program instructions that display the preapproval sales transaction amount to
8 the customer on the customer checkout accelerator for acceptance;

9 program instructions that transmit the preapproval amount to an external card
10 services system for approval;

11 program instructions that store the approval amount in a preapproval cache at
12 a point of sales terminal for use in completing the sales transaction;

13 program instructions that scan the customer payment card at a point of sales
14 terminal;

15 program instructions that determine if there is an entry for the customer in the
16 preapproval cache; and

17 program instructions that resume the sales transaction at the point of sale
18 terminal.

1 32. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 31 wherein the program instructions that resume
3 the sales transaction comprise:

4 program instructions that compare the actual sales transaction amount with the
5 preapproval amount;

6 program instructions that update a preapproval database with the actual sales
7 transaction amount; and

8 program instructions that release the difference between the preapproval
9 amount and the actual sales transaction amount in the preapproval database.

1 33. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 24 further comprising program instructions that
3 print a sales transaction receipt and a credit or debit voucher.

1 34. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 31, further comprising program instructions that
3 retrieve the preapproval amount from a preapproval database on a store controller file
4 server if there is no entry for the customer in the preapproval cache.

1 35. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 32 wherein the program instructions that resume
3 the sales transaction further include:

4 program instructions that scan the items selected by the customer for purchase
5 during the sales transaction;

6 program instructions that determine a subtotal purchase amount after each
7 item is scanned;

8 program instructions that determine if the subtotal amount exceeds the
9 preapproval amount; and

10 program instructions that dynamically request an additional amount for
11 approval during the sales transaction, if the subtotal amount exceeds the preapproval
12 amount.

1 36. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 35 further comprising:

3 program instructions that transmit an additional preapproval amount from the
4 external card services system;

5 program instructions that update the preapproval cache with the additional
6 preapproval amount if approved; and

7 program instructions that notify the operator of the point of sale terminal if the
8 additional preapproval amount is denied.

1 37. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 24 further comprising program instructions that
3 display on the customer checkout accelerator a selection of special promotional
4 merchandise that can be added to the sales transaction, wherein some or all of the
5 promotional merchandise can be made available through a hyperlink to one or more
6 Internet web sites.

1 38. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 37 further comprising:

3 program instructions that create a record of any additional items added to the
4 sales transaction;

5 program instructions that append the additional items record to a preapproval
6 database entry for the sales transaction.

1 39. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 38 further comprising program instructions that
3 read the additional items record into a sales transaction record at a point of sale
4 terminal.

1 40. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 39 further comprising program instructions that
3 update a vendor-based tracking database to bill the vendor for displaying a vendor
4 advertisement on the customer checkout accelerator for merchandise that can be made
5 available through a hyperlink to the vendor's Internet web site when the approval
6 from the external card services system is approved.

1 41. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 24 further comprising:

3 program instructions that configure a selection of additional categories
4 of items to be displayed on the customer checkout accelerator based on customer
5 preferences, wherein some or all of the categories of items can be made available
6 through a hyperlink to one or more Internet web sites; and

7 program instructions that store the category selections in a customer
8 loyalty database that is maintained by the retail store.

1 42. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 41 further comprising program instructions that
3 display on the customer checkout accelerator a selection of special promotional
4 merchandise in the customer selected categories that can be added to the sales
5 transaction, wherein some or all of the promotional merchandise can be made
6 available through a hyperlink to one or more Internet web sites.

1 43. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 42 further comprising:

3 program instructions that create a record of any additional items added
4 to the sales transaction;

5 program instructions that append the additional items record to a
6 preapproval database entry for the sales transaction.

1 44. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 43 further comprising program instructions that
3 read the additional items record into a sales transaction record at a point of sale
4 terminal.

1 45. The computer program product for accelerating the sales transactions of
2 customers in a retail store of claim 44 further comprising program instructions that
3 update a vendor-based tracking database to bill the vendor for displaying on the
4 customer checkout accelerator a vendor advertisement for merchandise that can be
5 made available through a hyperlink to the vendor's web site when the approval from
6 the external card services system is approved.

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